Remarks

1. In the Office Action mailed October 1, 2001, the claims were divided into seven groups, Group I, claims 1-49 and 53, drawn to a method of identifying variant recombinases and their variant recombination sites, and to a method of producing site specific recombination with variant recombinases; Group II, claims 50 and 51, drawn to a method of cloning large DNA fragments with concatemers, with a variant recombinase; Group III, claim 52, drawn to a method of cloning large DNA fragments without concatemers, with a variant recombinase; Group IV, claim 53, drawn to a variant recombinase; Group V, claims 54-57, drawn to a nucleic acid encoding a variant recombinase and a cell containing the nucleic acid; Group VI, claims 57 and 58, drawn to a transgenic plant, animal or mammal; and Group VII, claims 59-63, drawn to a nucleic acid encoding a recombination site and a cell containing the nucleic acid.

Applicants elect Group I, claims 1-49 and 53. This election is made with traverse, if the Examiner intends claims 1-49 and 53 to be grouped separately.

The Examiner asserts that Groups I-III and IV-VII can be shown to be distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05 (f)). In particular, the Examiner concludes that the variant recombinase can be made by "totally synthetic means". It is unclear to the Applicants how such a method could *produce* the claimed composition.

Central to the claimed composition is the variant activity of the recombinase. The *variant* recombinase must mediate recombination at variant recombination sites. If "totally

synthetic means" are available to produce *a* recombinase, what are the means produce a *variant* recombinase harboring the variant recombination activity that is central to the composition? The Examiner's cited method does not incorporate a means to define a recombinase. The presently claimed method details the production of a *variant* composition. A combination of reporter genes and recombination sites are used to determine whether or not a recombinase *is variant*. Claim 53 is directed to *a variant recombinase*.

The process as cited by the Examiner cannot be used to produce the composition of claim 53. Therefore, claims 1-49 and 53 are not distinct and therefore should be examined as a single invention.

Applicants also traverse the restriction requirement as currently set forth for the following reasons. To be valid, a restriction requirement must establish both that (1) the "inventions" are either independent or distinct, and (2) that examination of more than one of the "inventions" would constitute a burden to the Examiner. Applicants respectfully submit that a search for prior art relating to the claims divided into Groups I and IV does not impose a serious burden on the examiner. A search for one group of the claims will inherently include a search for the other groups of these claims. Groups I and IV, as defined by the Examiner, rely upon a recombinase that is variant. Applicants submit that a search for variant recombinases would reveal the elements of each claim. The Applicants respectfully submit that the restriction requirement does not provide sufficient basis to indicate that examination of more than one of the "groups" would overly burden the Examiner.

Favorable consideration of claims 1-63 is earnestly solicited.

Respectfully submitted,

Patrea L. Pabst
Reg. No. 31,284

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HOOLAND & KNIGHT LLP
One Atlantic Center
1201 West Peachtree Street
Atlanta, Georgia 30309-3400
(404) 817-8473
(404) 817-8588 (fax)

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I hereby certify that this paper, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Aisha Wyatt

Date: November 1, 2001

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